### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-023138

Address: 333 Burma Road **Date Inspected:** 25-Apr-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No **Delayed / Cancelled:** Yes N/A No

34-0006 **Bridge No: Component:** OBG

### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Kelly Leavitt, was present during the times noted above for random observations relative to the work being performed.

Bay 14

This QA Inspector observed the following work in progress for Bay 14.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Zhu Lin, CWI Sun Tian Liang.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG PCMK: X3305K-033 Weld No: 001.002 Welder: 067876

WPS-B-T-2233-ESAB

Components; OBG PCMK: X3305K-023 Weld No: 001,002 Welder: 045240

WPS-B-T-2233-ESAB



## WELDING INSPECTION REPORT

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This QA Inspector observed the following work in progress for Bay 14.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Zhu Lin, CWI Sun Tian Liang.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG

PCMK: TR3021TR1-001

Weld No: 004

Welder: 066673, 066674 Repair No. B-WR20755

WPS-345-SMAW-2G(2F)-Repair-1

Components; OBG PCMK: X3305K-015 Weld No: 001,002 Welder: 067611

WPS-B-P-2212-TC-U4b-FCM-1

This Caltrans QA Inspector observed at random intervals ZPMC performing grinding of welds located in OBW Splice Plate X4241D at various locations due to contour grinding and visual indications as identified by ZPMC QC Inspectors.

This Caltrans QA Inspector observed at random intervals ZPMC performing grinding of welds located in OBW13 Splice Plate X3305K-017 at various locations due to contour grinding and visual indications as identified by ZPMC QC Inspectors.

This QA Inspector observed the following work in progress for Bay 14.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Xie Ming Feng, QA Zhang Qi Li.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS). Listed below are the locations that were identified by this QA inspector.

Components; OBG 14 E PCMK: SEG3019AH

Weld No: 001 Welder: 216086

WPS-B-P-2212-TC-U4b-FCM-1

Components; OBG 14 E PCMK: SEG3019\* Weld No: 017

Welder: 215553

## WELDING INSPECTION REPORT

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#### WPS-B-P-2212-TC-U4b-FCM-1

Components; OBG 14 E PCMK: SEG3019E-1 Weld No: 025~048 Welder: 501946

WPS-B-P-2213-TC-U4b-FCM-1

This QA Inspector observed the following work in progress for Bay 14.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Xie Ming Feng, QA Zhang Qi Li.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 14 E PCMK: SEG3019W

Weld No: 011,013 Welder: 067877

WPS-B-T-2233-ESAB

Components; OBG 14 E

PCMK: SEG3019V Weld No: 227

Welder: 058102, 044772 Weld Repair No. B-WR20407

WPS-345-FCAW-3G(3F)-FCM-Repair-1

Components; OBG 14 E

PCMK: SEG3019S

Weld No: 342,350,343,345,351

Welder: 058102, 044772

Weld Repair No. B-WR20407

WPS-345-FCAW-3G(3F)-FCM-Repair-1

Components; OBG 14 E PCMK: SEG3019Q-2 Weld No: 205,207,214 Welder: 058102, 044772 Weld Repair No. B-WR20407

WPS-345-FCAW-3G(3F)-FCM-Repair-1

Components; OBG 14 E

PCMK: SEG3019N

Weld No: 266,172,295,273

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Welder: 058102, 044772 Weld Repair No. B-WR20407

WPS-345-FCAW-3G(3F)-FCM-Repair-1

Components; OBG 14 E

PCMK: SEG3019L Weld No: 219,221

Welder: 058102, 044772 Weld Repair No. B-WR20407

WPS-345-FCAW-3G(3F)-FCM-Repair-1

Heat straightening of OBG14 East Bottom Plate at Panel Point 125 under approved Heat Straightening procedure, HSR1 (B)-465. The in process temperature was observed as 450°C. The ZPMC QC was identified as Xie Ming Feng. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 8mm.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## **Summary of Conversations:**

"No relevant conversations."

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey 1500026784, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Leavitt,Kelly	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer